

10 Steps to get the Most from Your Exercise Program Part: 7

By: Patricia Tremblay, BS, NSCA-CPT
Original Publish date: July 2003



Over training, its not a term heard frequently in a gym. Most individuals are concerned more with under training. But the reality of the situation is that many people are confused! They are in the mind set that more must be better. More sets, more reps , more hours , more days, more miles, I think you get the idea. The fact of the matter is more is usually not better, when you are repeating the same exercise over and over. This is true, especially if that exercise is being done on a fixed resistance exercise machine. Equipment can be classified as fixed form or free form in nature. Fixed form maintains the pattern of movement over a range of motion. Free-form exercise uses free weights or machines that allow multiple planes of movement and require balance. Fixed form isolates the muscles at a specific joint and is very effective at creating hypertrophy of the targeted muscle. No a bad thing, unless that is the only piece of exercise equipment you are using. Failure to incorporate free-form exercise creates Pattern Overload Syndrome. Pattern Overload Syndrome can be described as repetitive stress injury and cumulative trauma disorder, which is the breakdown of muscle tissue and injury to that tissue due to repetitive exposure to a particular movement. A good example would be the injuries common with professional baseball pitchers.



Step #8: Avoid performing the same exercise on the same machine, alternate with free form movements to avoid pattern overload. It is important to remember that Fixed exercise machines are designed to keep the joints in a “fixed” range of motion. This stops the natural recruitment of the synergistic (assister) muscles, which are an important part of the protective design of the body. Poor technique often compounds this whole problem, because now you

are isolating the muscle in an in-efficient manner, placing even more stress on the surrounding muscles and joints. My point here is , do not use the same leg curl machine , to the exclusion of other exercise that also work the hamstring. This can be said for biceps, triceps, shoulders, and so on.

The order of exercise is also important to avoid over-training. The effect of order is directly related to the rate of fatigue and the intensity possible. Exercises should be prioritized so that the ones that are most important to the training goal are performed first. If you have over fatigued your biceps by doing bicep curls, and then attempt heavy bench pressing, odds are you will not be able to achieve optimal results, and put yourself at risk for injury. Also, more complex exercises and large muscle-group exercise need to be placed at the beginning of a workout for enhanced performance. This means that a lunge should be executed before a leg extension. I could go on, and on, but mostly it comes down to common sense. If you are sore every day, and exhausted instead of energized, most likely you are guilty of some form of over training. Train smart, and your body will thank you. Failure to honor your body will result both a mental and physical burnout, and almost always injury.

Patricia Tremblay ,B.S. and is a NSCA certified personal trainer and owns Physiques By PT, a personal training and consulting company specializing in on site fitness programs.